

GLM:ash 10/21/04 313254.doc
PATENT

Attorney Reference Number 5437-60780-01
Application Number 09/921,993

In the Claims:

1. (previously presented) A method of constructing a model generating one or more job performance criteria predictors based on input pre-hire information, the method comprising:
from a plurality of applicants, electronically collecting pre-hire information from the applicants;

collecting post-hire information for the applicants based on job performance of the applicants after hire; and

from the pre-hire information and the post-hire information, generating an artificial intelligence-based predictive model operable to generate one or more job performance criteria predictors based on input pre-hire information from new applicants, whereby the one or more job performance criteria predictors are usable as a basis for a hiring recommendation or other employee selection information.

2. (previously presented) A computer-readable medium comprising computer-executable instructions for performing a method of constructing a model generating one or more job performance criteria predictors based on input pre-hire information, the method comprising:
from a plurality of applicants, electronically collecting pre-hire information from the applicants;

collecting post-hire information for the applicants based on job performance of the applicants after hire; and

from the pre-hire information and the post-hire information, generating an artificial intelligence-based predictive model operable to generate one or more job performance criteria predictors based on input pre-hire information from new applicants.

3. (canceled)

4. (canceled)

GLM:ash 10/21/04 313254.doc
PATENT

Attorney Reference Number 5437-60780-01
Application Number 09/921,993

5. (original) The method of claim 1 further comprising:
limiting the applicants for the model to those with a particular occupation; and
constructing the model as an occupationally-specialized model.
6. (original) The method of claim 1 wherein the model accepts one or more inputs,
the method further comprising:
identifying in the pre-hire information one or more characteristics that are ineffective
predictors; and
omitting the ineffective predictors as inputs to the model.
7. (original) The method of claim 1 wherein the pre-hire information comprises one
or more characteristics, the method further comprising:
identifying in the pre-hire information one or more characteristics that are ineffective
predictors; and
providing an indication that the characteristics no longer need to be collected.
8. (original) The method of claim 1 wherein job performance criteria predictors
comprise a predictor indicating whether a job candidate will be voluntarily terminated.
9. (original) The method of claim 1 wherein job performance criteria predictors
comprise a predictor indicating whether a job candidate will be eligible for rehire after
termination.
10. (previously presented) The method of claim 1 wherein the pre-hire information
comprises one or more characteristics, the method further comprising:
identifying in the pre-hire information one or more characteristics that are ineffective
predictors;
responsive to identifying the ineffective predictors, collecting new pre-hire information
not including the ineffective predictors; and
building a refined model based on the new pre-hire information.

GLM:ach 10/21/04 313254.doc
PATENT

Attorney Reference Number 5437-60780-01
Application Number 09/921,993

11. (original) The method of claim 10 further comprising:
adding one or more new characteristics to be collected when collecting the new pre-hire
information.

12. (original) The method of claim 11 further comprising:
evaluating the effectiveness of the new characteristics.

13. (canceled)

14. (canceled)

15. (previously presented) A method for constructing an artificial intelligence-based
employment selection process based on pre-hire information comprising personal employee
characteristics and post-hire information comprising employee job performance observation
information, the method comprising:

generating a plurality of predictive artificial intelligence models based on the pre-hire and
post-hire information, wherein at least two of the artificial intelligence models are of different
types;

testing effectiveness of the models to select an effective model; and

applying the effective model to predict post-hire information not yet observed, whereby
the post-hire information not yet observed that is predicted by the effective model can be a basis
for a hiring recommendation or other employee selection information.

16. (canceled)

17. (previously presented) The method of claim 15 wherein at least one of the models
is an expert system.

18. (canceled)

19. (canceled)

GLM:ach 10/21/04 313254.doc
PATENT

Attorney Reference Number 5437-60780-01
Application Number 09/921,993

20. (canceled)

21. (original) The method of claim 15 further comprising:
identifying at least one of the models as exhibiting impermissible bias; and
avoiding use of the models exhibiting impermissible bias.

22. (original) The method of claim 21 wherein the impermissible bias is against a
protected group of persons.

23. (original) A computer-implemented method of refining an artificial-intelligence
based employee performance selection system, the method comprising:

collecting information via an electronic device presenting a set of questions to
employment candidates, wherein the questions are stored in a computer-readable medium;

testing effectiveness of at least one of the questions in predicting the post-hire
information; and

responsive to determining the question is ineffective, deleting the question from the
computer-readable medium.

24. (canceled)

25. (original) A computer-readable medium comprising a predictive model, the model
comprising:

inputs for accepting one or more characteristics based on pre-hire information for a job
applicant;

one or more predictive outputs indicating one or more predicted job effectiveness criteria
based on the inputs,

wherein the predictive model is an artificial intelligence-based model constructed from
pre-hire data electronically collected from a plurality of employees and post-hire data, and the
model generates its predictive outputs based on the similarity of the inputs to pre-hire data
collected for the plurality of employees and their respective post-hire data.

GLM:seh 10/21/04 313254.doc
PATENT

Attorney Reference Number 5437-60780-01
Application Number 09/921,993

26. (original) The computer-readable medium of claim 25 wherein the predictive model comprises a predictive output indicating a rank for the job applicant.

27. (original) The computer-readable medium of claim 26 wherein the rank is relative to other applicants.

28. (original) The computer-readable medium of claim 26 wherein the rank is relative to the plurality of employees.

29. (original) The computer-readable medium of claim 25 wherein the predictive model comprises a predictive output indicating probability of group membership for the job applicant.

30. (original) The computer-readable medium of claim 25 wherein the predictive model comprises a predictive output indicating predicted tenure for the job applicant.

31. (canceled)

32. (original) The computer-readable medium of claim 25 wherein the predictive model comprises a predictive output indicating predicted number of accidents for the job applicant.

33. (original) The computer-readable medium of claim 25 wherein the predictive model comprises a predictive output indicating whether the applicant will be involuntarily terminated.

34. (original) The computer-readable medium of claim 25 wherein the predictive model comprises a predictive output indicating whether the applicant will be eligible for rehire after termination.

GLM:aah 10/21/04 313254.doc
PATENT

Attorney Reference Number 5437-60780-01
Application Number 09/921,993

35. (original) A computer-readable medium comprising a refined predictive model, the model comprising:

inputs for accepting one or more characteristics based on pre-hire information for a job applicant;

one or more predictive outputs indicating one or more predicted job effectiveness criteria based on the inputs,

wherein the predictive model is constructed from pre-hire data electronically collected from a plurality of employees and post-hire data, wherein the pre-hire data is based on a question set refined by having identified and removed one or more questions as ineffective.

36. (original) The computer-readable medium of claim 35 wherein the ineffective questions are identified via an information transfer technique.

37. (original) The computer-readable medium of claim 35 wherein the model is an artificial intelligence-based model.

38. (new) An apparatus for assisting in determining the suitability of an individual for employment by an employer, the apparatus comprising:

electronic data interrogator means for presenting a first set of a plurality of means for questioning to the individual;

electronic answer capturer means for electronically storing the individual's responses to at least a selected plurality of the first set of means for questioning presented to the individual;

electronic predictor means responsive to the stored answers and for predicting at least one post-hire outcome if the individual were to be employed by the employer, the predictor providing a prediction of the outcome based upon correlations of the stored answers with answers to sets of means for questioning by other individuals for which post-hire information has been collected; and

electronic results provider means for providing an output indicative of the outcome to assist in determining the suitability of the individual for employment by the employer;

wherein the apparatus comprises the predictive model of claim 1.

GLM:ach 10/21/04 313254.doc
PATENT

Attorney Reference Number 5437-60780-01
Application Number 09/921,993

39. (new) An apparatus for assisting in determining the suitability of an individual for employment by an employer, the apparatus comprising:

- means for presenting a first set of a plurality of means for questioning to the individual;
- means for electronically storing the individual's responses to at least a selected plurality of the first set of means for questioning presented to the individual;
- means responsive to the stored answers and for predicting at least one post-hire outcome if the individual were to be employed by the employer, the predictor providing a prediction of the outcome based upon correlations of the stored answers with answers to sets of means for questioning by other individuals for which post-hire information has been collected; and
- means for providing an output indicative of the outcome to assist in determining the suitability of the individual for employment by the employer;

wherein the apparatus comprises the predictive model of claim 1.

40. (new) The computer-readable medium of claim 25 incorporated into an apparatus for assisting in determining the suitability of an individual for employment by an employer, the apparatus comprising:

- electronic data interrogator means for presenting a first set of a plurality of means for questioning to the individual;
- electronic answer capturer means for electronically storing the individual's responses to at least a selected plurality of the first set of means for questioning presented to the individual;
- electronic predictor means responsive to the stored answers and for predicting at least one post-hire outcome if the individual were to be employed by the employer, the predictor providing a prediction of the outcome based upon correlations of the stored answers with answers to sets of means for questioning by other individuals for which post-hire information has been collected; and
- electronic results provider means for providing an output indicative of the outcome to assist in determining the suitability of the individual for employment by the employer.

GLM:ach 10/21/04 313254.doc
PATENT

Attorney Reference Number 5437-60780-01
Application Number 09/921,993

41. (new) An apparatus for assisting in determining the suitability of an individual for employment by an employer, the apparatus comprising:

- means for presenting a first set of a plurality of means for questioning to the individual;
- means for electronically storing the individual's responses to at least a selected plurality of the first set of means for questioning presented to the individual;
- means responsive to the stored answers and for predicting at least one post-hire outcome if the individual were to be employed by the employer, the predictor providing a prediction of the outcome based upon correlations of the stored answers with answers to sets of means for questioning by other individuals for which post-hire information has been collected; and
- means for providing an output indicative of the outcome to assist in determining the suitability of the individual for employment by the employer;

wherein the apparatus comprises the predictive model of claim 25.

42. (new) An apparatus for assisting in determining the suitability of an individual for employment by an employer, the apparatus comprising:

- means for presenting a first set of a plurality of means for questioning to the individual;
- means for electronically storing the individual's responses to at least a selected plurality of the first set of means for questioning presented to the individual;
- means responsive to the stored answers and for predicting at least one post-hire outcome if the individual were to be employed by the employer, the predictor providing a prediction of the outcome based upon correlations of the stored answers with answers to sets of means for questioning by other individuals for which post-hire information has been collected; and
- means for providing an output indicative of the outcome to assist in determining the suitability of the individual for employment by the employer;

wherein the apparatus comprises the predictive model of claim 35.